



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,794	01/04/2002	Jorg Oser	X-1143	6951

7590 09/12/2003

Frank J. Nawalanic
1422 Euclid Avenue, Suite # 720
Cleveland, OH 44115

EXAMINER

VAN PELT, BRADLEY J

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SW

Office Action Summary	Application No. 10/037,794	Applicant(s) OSER, JORG	
	Examiner Bradley J Van Pelt	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 3, 5, 7, 10-12, 18, 19, 22, 23, 25, 30, 34, 35 and 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9, 14-17, 20, 21, 24, 37 and 39-41 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 8, 13, 26-29, 31-33 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restrictions

2. This action is in response to the election/restriction requirement claims 1-41 are currently pending.
3. Claims 3, 5, 7, 10, 11, 12, 18, 19, 22, 23, 25, 30, 34, 35, and 38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5. Note that claims withdrawn by examiner do not read on the elected species.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the angle of the rolling curve arc, and the cylindrical forming tool must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

Art Unit: 3682

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 17, 21, and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 17, the structure of the cylindrical forming tool is not clear.

Claim 21, it is unclear as to how “the driven gear wheel of one driven and driving gear set functions as the driving gear of another driven and driving gear wheel set.” Specially, in the specifications, the applicant asserts the system is driven at the drive side 5.

Claim 37, the structure of the angle of the rolling curve ^{ϕ} arc is not clear.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 9, 14-16, 20, 24, and 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Noye et al. (USPN 3,362,685).

Noye discloses spur gear driving arrangement, fig. 4, including a driving wheel (50) for driving said driven gear wheel (48) at an adjusted gear ratio, said chain wheel (24¹²) and said drive gear rotatable on a common axis; and at least one of said driving and driven gear wheels having a noncircular toothed wheel configuration established relative to the pitch circle and including a plurality of rolling curve means for causing said chain wheel to have a minimum angular

velocity at a corner of said polygon and a maximum velocity at a mid-point of a straight side of said polygon while said driving wheel rotates at a constant angular velocity;

a plurality of short straight lines and a plurality of long straight lines with a long straight line adjacent an end of a short straight line, said short straight lines corresponding to corners of said polygon, and the pitch circle radius of said noncircular gear wheel at the middle of and short straight line is greater than the pitch circle radius at the middle of any long straight line;

a set gear ratio of said driving gear wheel to said driven gear wheel;

a plurality of rolling curve sections and the intersection of adjacent rolling curve sections of said driven gear wheel have concave, unilaterally bent adjustment curve surfaces tangential to said rolling curve surfaces;

driven gear is defined by an undulating adjustment curve surface in tangential contact at its ends to said rolling curve sections;

undulating curve is mathematically defined as being selected from the mathematical group consisting of a polynomial of fourth order and a modified trigonometric function $x \sin x$ (inherent in disclosure);

the shape of said rolling curve sections adjacent the intersection of rolling curve sections is varied over a portion of each rolling curve sections adjacent said intersection to maintain said set gear ratio.

Allowable Subject Matter

9. Claims 4, 6, 8, 13, 26, 27, 28, 29, 31, 32, 33, and 36 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nishi et al.(EP 0 540 138 A1), Vance (USPN 836,789), Van Thielen (USPN 3,523,463), Vetter (USPN 3,901,002), and Kilski (USPN 6,199,830).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley J Van Pelt whose telephone number is 703.305.8176. The examiner can normally be reached on M-Th 7:00-4:30, 2nd F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703.308.3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.2168.

BJVP


Thomas R. Hannon
Primary Examiner